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The King's new clothes in the eyes of the beholder: developing a measurement scale for attitude towards corruption

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This study investigates the validity and reliability of a developing scale on attitude towards corruption. It correlates this scale with existing and related behavioural measures, both ethical (money ethic, work ethic and corruption perception) and non-ethical (organisational commitment and job satisfaction). Survey data was obtained from 1833 respondents in Nigeria. Findings confirm the 20-item measure as a multidimensional construct loading on 4 factors with a reliability coefficient (0.62) and with evidence of construct validity. Significant relationships were also found between attitude towards corruption and both the ethical and non-ethical behavioural measures investigated. Some further research directions were suggested.

Introduction

The debate about what effectively measures corruption has been ravaging for some time. Should we continue to rely of subjective measures? How easy is it to obtain objective measures? The controversy is not helped by the secrecy that often surrounds the very act of corruption itself. There is little doubt that corruption is difficult to study empirically, because of its very nature: rarely does it leave a trail, often no witnesses are involved, disclosure is at the pleasure of the actors involved, and making it public knowledge is considered negative. There will, therefore, always be something that can and, perhaps, should have been done differently when critiquing a corruption paper.

Recently, Donchev and Ujhelyi (2008) found that, apparently, corruption indices do not measure level of corruption. When these authors correlated data on actual corruption experiences with reported corruption perceptions in surveys by Transparency International and the International Country Risk Guide (two of the most popularly cited corruption perception indicators in the literature and popular media) they found no correlation. Factors such as level of economic development, democratic institutions, protestant traditions, have been suggested to "reduce" corruption and Donchev and Ujhelyi (2008) found that these factors actually systematically bias corruption perception downward from corruption experience.

People usually assume that rich countries, democratic societies or those with high ethical values will experience less corruption regardless of what obtains in reality. In addition, they argued that perception indices are influenced by absolute (as opposed to relative) levels of corruption, which penalizes large countries where the media reports more stories of corruption (in terms of absolute numbers) and so people who answer the surveys in, say, Brazil, think the country is more corrupt than, say, Argentina, even if in terms of the number of corruption instances per adult population Argentina may have more. In sum, recent objective measures of corruption find that perceptions differ from reality (Donchev & Ujhelyi, 2007; 2008)

Corruption itself remains a very topical yet controversial issue. The literature on the subject is intimidating as all aspects of this social ill have been well documented: its nature, extent, causes, measurement, and consequences among others. Treisman (2000) identified potential causes of corruption to include legal origins, colonial past, percent protestant, ethno-linguistic fractionalization, natural resources, GDP, democratic institutions, federal government etc. In Africa, Collier (2000) enumerated the causes of corruption to include: over-regulation of private activity; expanded public sector employment; expanded public sector procurement; and weakened scrutiny. In its most devastating form, according to Svensson (2005), corruption include the diversion and outright theft of funds meant for public programmes and the subsequent damage caused by firms and individuals that pay bribes to avoid health and safety regulations intended to benefit the public. The author details harrowing examples of corruption figures and comparable humanitarian possible uses of stolen fund around the world (pp. 19-20).

Defining corruption

Defining corruption is a subject that most writers have to address while writing a corruption related paper. Consequently, there are a variety of corruption definitions available in the literature. Some interesting coverage includes Johnston (1996); Jain (2001); Svensson (2005); and Sampford, et al (2006). While corruption definition is not our primary concern we

nevertheless find the definition of Osoba (1996) instructive and adopted it for our purpose: "... a form of antisocial behaviour by an individual or social group which confers unjust or fraudulent benefits on its perpetrators, is inconsistent with the established legal norms and prevailing moral ethos of the land and is likely to subvert or diminish the capacity of the legitimate authorities to provide fully for the material and spiritual well-being of all members of society in a just and equitable manner (p. 372)".

It is the cumulative of this socially undesirable behaviour that we refer to as corruption and it is people's attitude to such behaviour that is the interest of this paper. We seek to develop a behavioural measurement scale that will capture people attitude towards corruption.

Corruption measurement

The literature of the behavioural measurements of corruption is still in its infancy. The existing evidence of how to combat corruption is also scanty. Measuring corruption across countries is a difficult task; both due to the secretive nature of corruption and the variety of forms it takes (Svensson, 2005). The ranking of countries as more or less corrupt are based on subjective judgements and as such cannot be used to quantify the magnitude of corruption (Svensson, 2005). Once we can measure corruption, however approximately, we can discover what tends to reduce it (Collier, 2000). A key step in the fight against corruption is therefore its measurement. Measurement does much more than guide our interventions: it provides a benchmark against which we can measure progress. Perhaps the strongest argument in favour of measurement is that once corruption is measurably on the decline, this will itself be reinforcing as it changes expectations (Collier, 2000).

Among the several aggregate indicators available in the literature, three have stood out because of their sophistication and very extensive use among anti-corruption practitioners: (1) the Corruption Perception Index (CPI), published annually by Transparency International, (2) the Business Environment and Enterprise Survey (BEEPS) and (3) World Governance Indicators (WGI), both built by the World Bank (Urra, 2007). The CPI commonly called the "poll of polls" is perhaps the most widely used and cited indicator of corruption. It has been widely criticised for its subjectivity, inaccuracy, inconsistency and real impossibility to assess what a particular given degree of corruption means for a country (e.g. Svensson, 2005; Urra, 2007; Ampratwum, 2008). CPI assumes corruption is unidimensional but in actual fact, corruption has about at least three facets: embezzlement, bribery and corruption (Ampratwum, 2008). Again by the very nature of corruption (secrecy, illegality, variations across different economic activities), it is impossible to obtain precise information on the extent of corruption in a country (Ampratwum, 2008). The CPI, nevertheless, remains a

powerful tool revered and used across the world. Recent research (Donchev and Ujhelyi, 2007; 2008) have shown that the gap between perception of corruption – which indicators such as CPI, BEEPS and WGI measures – and real corruption can be even larger than expected, "...implying that using corruption perception indices as a measure of corruption experience may be more problematic than suggested by the existing literature" (Donchev and Ujhelyi: 2007; p.17).

The primary objective of the study is to investigate the validity and reliability of a developing scale on attitude towards corruption using a sample of respondents from Nigeria. To what extent is the attitude towards corruption scale a multidimensional measure? The study also attempts to assess the relationship of the scale with similar measures of ethics (such as the money ethic scale, Islamic work ethics, and corruption perception) and other behavioural measures (such as organisational commitment and job satisfaction).

Methodology

The study is a cross-sectional design and data was collected from employees from the private and public sector in Lagos, Nigeria.

Sample and respondents characteristics

About 3,800 questionnaires were administered in Lagos (which is the commercial hub of Nigeria) to randomly selected employees in several organisations. A total of 1842 were returned with 1833 being usable representing 48.24 percent response rate, 9 questionnaires were omitted from analysis for various types of incompleteness.

The analysis of the respondent profile is shown in Table 1. Over 62 percent respondents were males, with majority of them between 21 and 40 years old (about 78%), about 50 percent were married and most worked either in the private sector (45.9%) or were self employed (15%). About 67 percent had more than a high school qualification with about 41 percent possessing university degrees and 60 percent have worked for more than 5 years. Over 74 percent were Christians and about 24 percent being Muslims, only 26 (1.5%) did not indicate their religion. About 99 percent of respondents were Nigerian citizens, the remaining 1 percent either did not answer the questions or they were citizens of neighbouring countries.

Table 1: Summary of Respondents Profile (N = 1833)

Personal Profile	Frequency	%	Personal Profile	Frequency	%
Gender			Education		
Male	1115	62.4	Primary school	204	11.4
Female	673	37.6	Secondary/High School	163	9.1
Age			Other diploma (not university)	469	26.3
Below 20	71	4.0	University/Polytechnic	739	41.4
21-30	729	40.7	Postgraduate degree	161	9.0
31-40	681	38.0	Others (e.g. professional qualifications)	47	2.6
41-50	240	13.4	Marital Status		
51-60	66	3.7	Single	808	45.4
Over 60	6	0.3	Married	893	50.2
Experience			Others	79	4.4
Less than 1 year	117	6.6	Organisation Type		
1-5	596	33.4	Government/Public/Civil Service	300	16.8
6-10	462	25.9	Public parastatal	170	9.5
11-15	270	15.1	Education e.g. teaching	194	10.9
16-20	208	11.6	Private sector	819	45.9
Over 20	133	7.4	Self-employed	267	15.0
Religion			Others	33	1.9
Christianity	1307	74.6	Citizenship		
Islam / Muslim	419	23.9	Nigerians	1809	98.69
Others (not stated)	26	1.5	Others	24	1.31

Note: Only valid percent are reported in the tales

Measures

Attitude towards corruption was measured using a 20-item scale on a 5-point Likert-type scale ranging from 'strongly disagree' to 'strongly agree' developed for the purpose of this study. Face validity was established using a cross-section of African academics and it was also pilot tested with a small group of Africans at a management development workshop to clean up ambiguity and other related issues. Cronbach alpha obtained for this sample is 0.62. The items are presented in Table 2.

Work ethics (Islamic) was measured using a 17-item measure of Ali (1988) and Yousef (2000) on a 5-point Likert-type scale ranging from 'strongly disagree' to 'strongly agree'. The Cronbach alpha obtained in this sample is 0.78. Some example of the items include: (1) Life has no meaning without work (2) Creative work is a source of happiness and accomplishment and (3) A successful man is one who meets deadlines at work.

Money ethic scale (MES) was measured with the six-item measure of Tang *et al.* (2002). The Cronbach alpha for this scale in our sample is 0.62 which is slightly lower than the reported 0.68 in an earlier African sample (Gbadamosi & Joubert, 2005). The scale has however been examined in many different countries in Asia, Europe and the USA (Tang *et al.* 2002). Some example items are: (1) Money is the root of all evil and (2) Money is a symbol of success.

Corruption perception a 5-item measure on a five-point scale from 'always' to 'never' was used for this purpose (Gbadamosi, 2006). It measures aspects of

corruption perception and an example item is: "Individuals pay bribes and tips to get things done: This is the case". The Cronbach alpha obtained for this scale is 0.64.

Organisational commitment was measured using the 6-item scale of Benkhoff (1997) on a 5-point Likert-type scale ranging from 'strongly disagree' to 'strongly agree'. Example items include: (1) I am willing to put a great deal of effort beyond that normally expected in order to help this organization be successful and (2) Deciding to work for this organization was a definite mistake on my part (reversed scored). The Cronbach alpha obtained for this scale is 0.49.

Job satisfaction a 5-item measure on a five-point scale from 'strongly disagree' to 'strongly agree' was also used for this purpose. Example items include: (1) I am satisfied with my job for the time being and (2) I sometimes have to force myself to go to work (reversed scored). Cronbach alpha for the present sample is 0.62.

Rate of bribery and corruption is measured with a single item 'how would you rate the incidence of bribery and corruption in the country?' Three options of 'high', 'moderate' and 'low' were provided.

Demographic characteristics the demographic variables included in the study are gender, religion, marital status, age, education, work experience, and type of organisation.

Analysis and Results

The 20-items questionnaire measuring values and attitude towards corruption were subjected to principal component analysis (PCA) using SPSS. Prior to this the suitability of data for factor analysis was assessed. The correlation matrix revealed coefficients of 0.3 and above; the KMO value was good (0.74) and the Bartlett's Test of Sphericity reached statistical significance ($p < .000$), supporting the factorability of the correlation matrix (Field, 2005; Pallant, 2007). Principal component analysis revealed six components with eigenvalues exceeding 1.0, explaining a total of 50.48 percent of the variance. The scatterplot reveals a strong support for four components and it was decided to retain the four components for further investigation. Moreover, results of the MonteCarlo parallel analysis (see Table 3) further supports four components from a

randomly generated data matrix of the same size (20 variables x 1833 variables).

To aid the interpretation of the four components, both the Varimax and Oblimin rotations were performed and compared. With correlations lower than 0.3 (between 0.09 and 0.13) among the four components the Varimax rotation is reported in this study as suggested in Pallant (2005). The percentage of total variance of all 20 items explained by the four factors is about 40%. The factor analysis shows some evidence of construct validity and with a reliability coefficient (Cronbach's alpha) of 0.62 the scale is good.

The four components were labelled: (1) Bribery (5 items) (2) Public life (7 items) (3) International outlook (5 items) and (4) elimination strategies (3 items).

Table 2: Factor Analysis: [Pattern Matrix ^a for coefficients]

Varimax Rotation of Four Factor Solution for Attitude towards Corruption

Items	Component			
	1	2	3	4
Bribes and tips are expected in daily life in this country	.700			
Lack of sanctions for corrupt practices is likely to increase corruption	.652			
Corruptions is a major problem in this country	.580			
Bribery and corruption is common in this country	.527			
Corruption is culturally acceptable in this country	.526			
Politicians in this country are generally more corrupt than ordinary citizens		.693		
Politicians are more corrupt than civil servants		.677		
Civil servants in this country are generally more corrupt than ordinary citizens		.547		
Bribery and corruption is more common in the public sector but fewer in private sector		.524		
Bribery and corruption is not common among very religious people		.349		
I am a very religious person		.347		
Corruption can never be eliminated in this country		.320		
Bribery and corruption is more common among foreigner who live in this country			.598	
Corruption is certainly not increasing in this country			.568	
The level of corruption in this country is exaggerated by the international community			.530	
Changes in cultural values has increased corruption in this country			.457	
Citizens of this country are generally not corrupt individuals			.435	
A good and committed government can reduce corruption				.751
An effective anti-corruption agency can reduce/eliminate corruption				.705
Prayers can help reduce and remove corruption				.525

Note: 20-item scale measuring attitude towards corruption. Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. ^a Rotation converged in 6 iterations.

Table 3: Comparison of eigenvalues from principal component analysis (PCA) and the corresponding criterion vales obtained from parallel analysis

Component number	Actual eigenvalue from PCA	Criterion value from parallel analysis	Decision
1	2.785	1.1870	Accept
2	2.264	1.1548	Accept
3	1.629	1.1311	Accept
4	1.300	1.1107	Accept
5	1.080	1.0913	Reject
6	1.037	1.0726	Reject

Table 4: Mean, Standard Deviation and Intercorrelations of Study Variables

Study variables	Mean	SD	1	2	3	4	5	6	7	8	9	10
1 Attitude towards corruption	3.48	.409	(0.62)	-.03	.29 ^a	.38 ^a	.06 ^b	.06 ^b	-.10 ^a	-.07 ^a	-.04	-.01
2 Corruption perception	2.97	.665		(0.64)	.04	.01	.04	-.08 ^a	.06 ^b	.05 ^b	.00	.03
3 Money ethic	3.43	.723			(0.62)	.27 ^a	.00	-.04	-.03	.07 ^a	.05 ^b	-.08 ^a
4 Work ethics (Islamic)	3.96	.481				(0.78)	.23 ^a	.009	-.10 ^a	-.09 ^a	.00	.08 ^a
5 Organisational commitment	3.53	.567					((0.49))	-.34 ^a	-.07 ^a	-.09 ^a	-.00	.02
6 Job satisfaction	12.94	2.789						(0.62)	-.04	-.02	-.02	-.01
7 Rate of bribery & corruption	1.17	.422							-	.10 ^a	.00	-.07 ^a
8 Religion	1.27	.476								-	.00	-.02
9 Gender	1.37	.482									-	-.05 ^b
10 Age	2.73	.897										-

Notes: N = 1833; p < 0.01 level ^a; p < 0.05 level ^b (2-tailed); Cronbach's Alpha (α) in parentheses and bold

The descriptive statistics and intercorrelations among the study variables are presented in Table 4. Attitude towards corruption was significantly and positively correlated with the two ethics scales in the study: with money ethic scale ($r = .29$, $p < 0.01$) and Islamic work ethics ($r = .38$, $p < 0.01$), which is not unexpected as all three scales measures some form of ethical conduct. This gives some construct validity support to the attitude towards corruption scale. There was also a significant correlation between the money ethic scale and Islamic work ethic ($r = .27$, $p < 0.01$).

There was, however, no significant correlation between corruption perception and the other variables in addition to being inversely correlated with attitude towards corruption. This is, perhaps, an indication that it measures something different from the other variables. Another plausible reason is that for the corruption perception scale responses were anchored on 5-points from 'always' to 'never' whereas the other variables were anchored from 'strongly agree' to 'strongly disagree'.

Results also revealed significant correlation between attitude towards corruption and other behavioural variables organisational commitment ($r = .06$, $p < 0.05$); job satisfaction ($r = .06$, $p < 0.05$). Attitude towards corruption was also inversely and significantly correlated with rate of bribery and corruption ($r = .10$, $p < 0.01$); and religion ($r = .10$, $p < 0.01$).

Discussion and Conclusions

This study set out to accomplish three interrelated objectives. First, to answer the question: to what extent is the attitude towards corruption scale a valid and reliable measure of corruption? Secondly, what is its relationship with other measures of ethics and corruption as well as other behavioural variables investigated? Thirdly, is the attitude towards corruption scale multidimensional and what are its components? The result of the PCA and the cross-validation with similar constructs was quite impressive. The factor analysis shows evidence of

construct validity for the scale and an overall reliability coefficient (Cronbach's α) of 0.62. Consequently, we can affirm that the scale has demonstrated being reliable and valid to a reasonable extent. Moreover, the significant correlation with other study variables including money ethic scale, Islamic work ethics, organisational commitment and job satisfaction (see Table 4) is an indication of some convergent validity and, to a limited extent, discriminant validity (Cooligan, 2004; Field, 2005). The result reveals further that the attitude towards corruption scale is indeed a multidimensional measure loading on 4 factors and showing very strong internal consistency among the factors. The factors were labelled: bribery; public life; international outlook; and elimination strategies.

The findings of this study are encouraging as it opens a number of areas for further research. The present data is not without limitations, for example, a more extensive exploration is possible and could yet reveal more meaningful information about the nature of the relationship among the study variables. There is also a need to increase the number of variables examined and extend the data analysis to attempt some prediction. This could be accomplished with partial and multiple regression analysis to show the partial and full impact of the variables between and among themselves. Furthermore, as with studies using a self-report instrument, the social desirability effect is a major potential limitation as respondents may answer questions according to their perception of social desirability (Bryman & Bell, 2007). However, given the complete anonymity guaranteed in the research process it is hoped that the effect, if at all, would be minimal. Finally, in-depth interviews and focus groups discussion with a follow-up sample of respondents may generate additional information to what was obtained with survey instrument.

The measurement of corruption remains a very difficult and complicated task and it is likely to remain so as long as it is a human problem which makes it essentially behavioural. Using the goggles of economics and political science among other

disciplines has apparently not produced a solution of how best to measure corruption and may not do so in the foreseeable future. Corruption is subject to several difficulties such as the lack of objective data, the error measurement both endogenous and exogenous to it, and the complexity to build effective bridges from measurement – the “problem” –, to policies – the “solution” (Urta, 2007).

Attention should perhaps begin to shift to the appropriateness of measures and the circumstances and relevance of the context in which they are being used. As long as the very act of corruption remains secretive, differs across cultures, and relative in real terms so will the so-called standard or consensus measurement remain elusive. What is perhaps a consensus is that as a problem which society encounters daily, as an area of academic enquiry, and as an issue of practitioner’s interest; understanding corruption and its measurement while extremely turbulent, dynamic and volatile remains a stimulating and challenging subject. So to what extent is corruption and its measurement comparable to the King’s new clothes, are they only in the eyes of the beholder? We are inclined to think so.

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